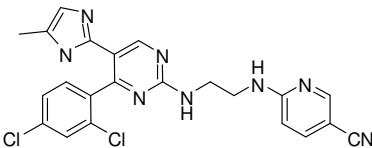




Certificate of Analysis

Axon Catalogue ID:	1386	Batch Number:	8	
Product Name:	CHIR 99021			
Alternative Name(s):	CT 99021			
IUPAC Name:	6-(2-(4-(2,4-dichlorophenyl)-5-(5-methyl-1H-imidazol-2-yl)pyrimidin-2-ylamino)ethylamino)nicotinonitrile			
Structure:			Amount:	
CAS number:	252917-06-9			
Batch Molecular Formula:	C ₂₂ H ₁₈ Cl ₂ N ₈	Batch MW:	465.34	
Appearance:	Off-white solid		Observed mp: >255 °C (decomp)	
TLC (R_f):	0.6	EtOAc/THF (1:1)		
Chemical Purity:	99.1%			
Optical Purity (ee):				
¹H-NMR (300 MHz):	Analytical data confirm chemical structure			
Mass Spec:	Analytical data confirm chemical structure			
Microanalysis:	Calculated: C 56.78 , H 3.90 , N 24.08 Found: C 56.65 , H 3.70 , N 24.14			
Storage Conditions:	Store at -20 °C			
Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water	0.0	0.0	Insoluble
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	25.0	53.7	Requires warming
	EtOH			Not Tested
Remarks:				
QC Date:	04-02-2014			

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to info@axonmedchem.com indicating Catalogue ID and Batch number.

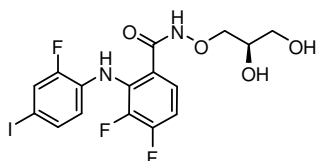
Caution: Not fully tested. For research purposes only



Certificate of Analysis

Axon Catalogue ID: 1408 **Batch Number:** 5
Product Name: PD 0325901
Alternative Name(s): N.A.
IUPAC Name: N-((R)-2,3-Dihydroxy[propoxy]-3,4-difluoro-2-(2-fluoro-4-iodo-phenylamino)-benzamide

Structure:



Amount:

CAS number: 391210-10-9
Batch Molecular Formula: C₁₆H₁₄F₃IN₂O₄ **Batch MW:** 482.19
Appearance: White solid **Observed mp:** 118 - 120 °C
TLC (R_f): 0.46 DCM/MeOH (9:1)
Chemical Purity: 100%
Optical Purity (ee): o.p.
¹H-NMR (300 MHz): Analytical data confirm chemical structure
Mass Spec: Analytical data confirm chemical structure
Microanalysis: Calculated: C 39.85 , H 2.93 , N 5.81 Found: C 39.39 , H 2.95 , N 5.60

Storage Conditions: Store at -20 °C

Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water	0.0	0.0	Insoluble
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	34.2	70.9	
	EtOH			Not Tested

Remarks:

QC Date: 02-05-2013

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to info@axonmedchem.com indicating Catalogue ID and Batch number.

Caution: Not fully tested. For research purposes only